WE CLAIM

1. A stent, comprising:

a helical structure having a plurality of coils, said structure having a longitudinal axis and said coils having a pitch, said structure having an internal longitudinal passage wherein said structure is made from a filament having a cross-section and an outer surface, said filament comprising:

a soft flexible elongated member having an outer surface; and

a bioabsorbable or biodegradable polymeric outer coating on the outer surface of the member;

wherein, the polymeric coating has sufficient mechanical integrity to effectively maintain the flexible member in a helical configuration, until the coating has sufficiently been degraded or absorbed in vivo to effectively convert the helical structure back into a soft, elongated member.

2. The stent of claim 1, wherein the coating comprises a melt polymer.

3. The stent of claim 1, wherein the coating comprises a solution polymer.

4. The stent of claim 1 wherein the filament comprises a surgical suture.

5. The stent of claim 4, wherein the suture comprises a monofilament.

6. The stent of claim 4, wherein the suture comprises a multifilament.

7. The stent of claim 4, wherein the suture comprises a non-absorbable suture.

8. The stent of claim 4 wherein the suture comprises an absorbable suture.

9. The stent of claim 1, wherein the coating comprises a polymer made from monomers selected from the group consisting of lactide, glycolide, para-dioxanone, caprolactone, and trimethylene carbonate, blends thereof and copolymers thereof.

10. The stent of claim 1, wherein the polymer of the coating has a glass transition temperature above 55 C.

11. The stent of claim 1 wherein the polymer of the coating has a glass transition temperature above 120 C.

12. The stent of claim 1, wherein the polymeric coating comprise a polymer selected from the group consisting of polyacrylamides, polyethylene glycols, polyethylene oxide, vinyl alcohols, and poly(N-vinyl pyrrolidone)s.

13. The stent of claim 1, wherein the polymeric coating additionally comprises polyamide.

14. A biodegradable filament, the filament comprising:

an elongated, flexible member having a cross-section, and an outer surface; and,

a polymeric coating on said outer surface, said coating comprising a biodegradable or bioabsorbable polymer,

wherein, the polymeric coating has sufficient mechanical integrity to effectively maintain the flexible member in a substantially fixed configuration, until the coating has sufficiently been degraded or absorbed in vivo to effectively convert the structure back into a soft, elongated member.

15. The filament of claim 14, wherein the coating comprises a melt polymer.

16. The filament of claim 14, wherein the coating comprises a solution polymer.

17. The filament of claim 14, wherein the filament comprises a surgical suture.

18. The filament of claim 17, wherein the suture comprises a monofilament.

19. The filament of claim 17, wherein the suture comprises a multifilament.

20. The filament of claim 17, wherein the suture comprises a non-absorbable suture.

21. The filament of claim 17 wherein the suture comprises an absorbable suture.

22. The filament of claim 14, wherein the coating comprises a polymer made from monomers selected from the group consisting of lactide, glycolide, para-dioxanone, caprolactone, and trimethylene carbonate, blends thereof and copolymers thereof.

23. The filament of claim 14, wherein the polymer of the coating has a glass transition temperature above 55 C.

24. The filament of claim 14 wherein the polymer of the coating has a glass transition temperature above 120 C.

25. The filament of claim 14, wherein the polymeric coating comprise a polymer selected from the group consisting of polyacrylamides, polyethylene glycols, polyethylene oxide, vinyl alochols, and poly(N-vinyl pyrrolidone)s.

26. The filament of claim 14, wherein the polymeric coating additionally comprises polyamide.

27. A method of maintaining a passageway of a body lumen substantially open, comprising the steps of:

providing a stent, said stent comprising:

a helical structure having a plurality of coils, said structure having a longitudinal axis and a longitudinal passage, and said coils having a pitch, wherein said structure is made from a fiber, said fiber having a cross-section and said filament comprising:

an elongated flexible, filament member, having an external surface and a cross-section; and,

a polymeric outer coating on the surface of the member, wherein, the polymeric coating has sufficient mechanical integrity to effectively maintain the flexible member in a helical configuration; and,

implanting said stent in a body lumen and maintaining the stent in the body lumen for a sufficient period of time to effectively maintain the passageway of the lumen substantially open for a desired period of time until the exterior coating softens, thereby converting the stent structure into a soft, flexible filamentary structure.